Appl. No. 10/526,365

Response to Office Action dated July 8, 2010

Atty. Docket No: 56029-53712

Amendments to the Specification:

Please replace paragraph [201] comprising TABLE 3 with the following paragraph and table that is amended as shown below:

[201]

TABLE 3. Oligonucleotides (Primer List)

Primer	RCIII Name	ACTUAL SEQ (5' TO 3')
No.		
(SEQ		
ID		
NO:)		
1	araD-BamHI	CGGGATCCTGGTAGGGAACGAC (SEQ ID NO:1)
2	araD-PmeI	AGCTTTGTTTAAACAGCAAATGCGCTTTGATA (SEQ ID NO:2)
3	araC-PmeI	GTCATTGTTTAAACTTGCCATCGTCTTACTCC (SEQ ID NO:3)
4	araC-SphI	ACATGCATGCGGACGATCGATAA (SEQ ID NO:4)
5	araE N-SphI	GACTGCATGCATGGTGTTGGTACA (SEQ ID NO:5)
6	araE N-PmeI	GTCATTGTTTAAACGGCGTGTAATCCTCCCTC (SEQ ID NO:6)
7	araE C-PmeI	GTCATTGTTTAAACCTGCCACAACAGAGTAAG (SEQ ID NO:7)
8	araE C-BamHI	CGGGATCCCATAGCGGTAGATG (SEQ ID NO:8)
9	araD-NcoI,PmeI	GATGCCATGGTTTAAACTATATTCAGCAAATGCG (SEQ ID
10	araD-NcoI,SD	NO:9) GATGCCATGGTCTGTTTCCTCGTCTTACTCCATCC (SEQ ID NO:10)
11	c2-PacI	GGTTAATTAATTATGGAAGATTTGCGAGT (SEQ ID NO:11)
12	c2-NcoI	CATGCCATGGCTATGAATACACAATTGA (SEQ ID NO:12)
13	lacI-XbaI	GCTCTAGATCACTGCCCGCTTTCC (SEQ ID NO:13)
14	lacI-PacI	GGTTAATTAAGGGTGGTGAATGTGAA (SEQ ID NO:14)
15	rrfG TT	AACTGCAGTCTAGATTATGCGAAAGGCCATCCTGAC
13	PstI, XbaI-5' PmeI, BamHI-3'	GGATGGCCTTTTTGTTTAAACGGATCCGC (SEQ ID NO:15)
16	rrfG TT-COMP	GCGGATCCGTTTAAACAAAAAGGCCATCCGTCAGGA
		TGGCCTTTCGCATAATCTAGACTGCAGTT (SEQ ID NO:16)
17	endA N-BamHI	CGGGATCCGCTACGAAATCCGCCTCAAC (SEQ ID NO:17)
18	endA N-HindIII	CCCAAGCTTAGCAAAACGAGCCCGCAACG (SEQ ID NO:18)
19	endA C-HindIII	CCCAAGCTTCCTACACTAGCGGGATTCTTG (SEQ ID NO:19
20	endA C-SphI	ACATGCATGCCGCAGCGCTCAGAG (SEQ ID NO:20)
21	fcl-SphI	GCACGCATGCAACAGCAGTATGTTCACG (SEQ ID NO:21)
		

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23	wcaF-XbaI	GCTCTAGATCCTCAAATAGTCCCGTTAGG (SEQ ID NO:23)
24	wcaF-SmaI	TCCCCCGGGCAAATATTGTATCGCTGG (SEQ ID NO:24)
25	gmm-SphI	GCACGCATGCTCAGGCAGGCGTAAATCGCTCT (SEQ ID
	5 -	NO:25)
26	gmm-XbaI	CCTCTAGACAATGTTTTTACGTCAGGAAGATT (SEQ ID
		NO:26)
27	relA C-SphI	ACATGCATGCCCAGATATTTTCCAGATCTTCAC (SEQ ID
		NO:27)
28	relA C-EcoRI	CGGAATTCACCCCAGACAGTAATCATGTAGCGG (SEQ ID
		NO:28)
29	relA N-EcoRI	CGGAATTCAAGGGACCAGGCCTACCGAAG (SEQ ID NO:29)
30	relA N-BamHI	CGGGATCCGAGGGCGTTCCGGCGCTGGTAGAA (SEQ ID
		NO:30)
31	msbB C-SmaI	TCCCCCGGGTTATGCTGTCTGCCGAAACC (SEQ ID NO:31)
32	msbB C-BglII	GAAGATCTGTAAGAGAGGCTTTATGCTGAC (SEQ ID NO:32)
33	msbB N-BglII	GAAGATCTCAGGGTCTGCTGACGCGAAAAG (SEQ ID NO:33)
34	msbB N-SphI	ACATGCATGCTGCCGGTTACTACATTGCGATTC (SEQ ID
		NO:34)
35	SalFliC-SphI	CATGCATGCAGGCAGGTTCAGGTACGGTGA (SEQ ID NO: 35)
36	SalFliC-BamHI	CGGGATCCGTTATCGGCAATCTGGAGGCAA (SEQ ID NO:36)
37	FljB C-SacI	GCGAGCTCTTCAAGAATTGCCAGAGAC (SEQ ID NO:37)
38	FljB C-EcoRI	CCGAATTCGGGGCTTTTTCAT (SEQ ID NO:38)
39	FljB N-EcoRI	CCGAATTCAGCAGACTGAACCGCCAGT (SEQ ID NO:39)
40	FljB N-KpnI	GGGGTACCTAATCAACACTAACAGTCT (SEQ ID NO:40)
41	EmurA 5'-EcoRI	CGGAATTCTGAGAACAAACTAAATGG (SEQ ID NO:41)
42	EmurA 3'-EcoRI	CGGAATTCTTATTCGCCTTTCACACGC (SEQ ID NO:42)
43	EaraC 5'-NsiI	CCAATGCATAATGTGCCTGTCAAATGG (SEQ ID NO:43)
44	EaraBAD 3'- EcoRI	CGGAATTCGCTAGCCCAAAAAAACG (SEQ ID NO:44)
45	EMGTGRV-NcoI	CATGCCATGGAGCTCGGTACCCGGGGAT (SEQ ID NO:45)
46	EMGTG-	CATGCCATGGAATTCTGAGAACAAACTAAGTGGATAAA
	NcoI, EcoRI	TTTCGTGTTCAG (SEQ ID NO:46)
47	PVAX-5	CGACCCGGGATCGATCTGTGCGGTATTTCACACCG (SEQ ID
		NO:47)
48	PVAX-3	GCACCCGGGTCGACAGATCCTTGGCGGCGAGAAAG (SEQ ID
	TREES AS WAS TOD	NO: 48) GGGGTACCAGGGGCCGCCACCATGGCACGTTTCTTTGT
49	EASZ240 KpnISD	ATTTCCTTACTCAGTTAAAATGGG (SEQ ID NO:49)
		CGGCTCGAGTTAGAAGCCGCCCTGGTACAGGTACT (SEQ ID
50	EASZ240XhoI	
	040 VmmT	$\frac{\text{NO}:50}{\text{GGGGTACCAGGAGCCGCCACCATGGCACGTTTC}}$
51	240-KpnI	
52	240-BamHI-XhoI	${ t NO:51 \choose t OCC}$
22	240 Damit Miot	ATAATCGAAGCCGCCCTGGTACAGGTACTCA (SEQ ID
		NO:52)

53	EAMZ250KpnISD	GGGGTACCAGGAGCCGCCACCATGGCTCCTTTGCCCTT
33		TTCTCCTCCTT (SEQ ID NO:53)
54	EAMZ250XhoI	CCGCTCGAGCTACGAACGCGCGAGGATACGGCGTGCGGT (SEQ
		ID NO:54)
55	250-KpnI	GGGGTACCAGGAGCCGCCACCATGGC (SEQ ID NO:55)
56	250-BamHI-XhoI	CGGGATCCCTCGAGTTATTATTATCATCATCATCTTT
		ATAATCCGAACGCGCGAGGATACGGCGTGCGGT (SEQ ID
		NO:56)
57	sipB-NdeI	GCAATTCCATATGGTAAATGACGCAAGTAGCATTAG (SEQ ID
	' D D D D	NO:57) CCGGATCCTTTATTTTGGCAGTTTTTATGCG (SEQ ID
58	sipB-BamHI	
F.0	Dati Daann	NO:58) AACTGCAGTCCTACGCTCACCCATCAATTG (SEQ ID NO:59)
59	PstI-P22PR	GCTCTAGAAGATCTAGCCCGCCTAATGAGCGG (SEQ ID
60	XbaI-trpATT	NO:60)
61	PmeI-Ptrc	AGCTTTGTTTAAACGGATCTTCCGGAAGACCTTCCATTC (SEQ
01	I III CI I CI C	ID NO:61)
62	XbaI-pBR	GCTCTAGACTGTCAGACCAAGTTTACTCATA (SEQ ID
	-	NO:62)
63	KpnI-c2-N	CGTTGGTACCAGGAGACTTAACTATGAATACACAA (SEQ ID
		NO:63)
64	SacI-c2-C	CGGCGAGCTCTTATGGAAGATTTGCGAGTTTTGC (SEQ ID
		NO:64)
65	XbaI-N	TGCTCTAGATGTGCATGGCAATCGCCCAAC (SEQ ID NO:65)
66	SphI, ScaI-N	ACATGCATGCTAATGAGAGCTCAGCGTTTTTTCCTGCAAAGAG
		ATGTGC (SEQ ID NO:66)
67	SphI-C	ACATGCATGCTAGTGGCTATTGCAGCGCTTA (SEQ ID
		NO:67) TCCCCCGGGTATCTGCGTCGTCCTACCTTC (SEQ ID NO:68)
68	XmaI-C	1000000011110100010101
69	endA N-SacI-5'	CGAGCTCGCTACGAAATCCGCCTCAAC (SEQ ID NO:69)
70	endA N-BglII-3'	GAAGATCTTAGCAAAACGAGCCCGCAACG (SEQ ID NO:70)
71	endA C-EcoRI-5'	GGAATTCCCTACACTAGCGGGATTCTTG (SEQ ID NO:71)
72	endA C-kpnI-3'	GGGGTACCGTTTAACGCCGCAGCGCTCAGAG (SEQ ID
	1 D DT 21	NO:72) GGAATTCTCACTGCCCGCTTTCCAGTCGGG (SEQ ID NO:73)
73	lacI EcoRI-3'	CCGCTCGAGAGGATGGTGAATATGAAACCAGTAACGTT (SEQ
74	lacI XhoI-5'	ID NO:74)
75	relA C-KpnI	GGGGTACCCCAGATATTTTCCAGATCTTCAC (SEQ ID
75	tery c-vbiir	NO:75)
76	relA C-EcoRI	CGGAATTCACCCCAGACAGTAATCATGTAGCGGCT (SEQ ID
. •		NO:76)
77	relA N-BglII	GAAGATCTAAGGGACCAGGCCTACCGAAG (SEQ ID NO:77)
78	relA N-SacI	CGAGCTCGAGGGCGTTCCGGCGCTGGTAGAA (SEQ ID
		NO:78)
79	V.fliC 1 XmaI	TCCCCCGGGCGCTATCGAGCGTCTGTCTTCCGG (SEQ ID
		<u>NO:79</u>)

80	V fliC 2 EcoRI	GGGAATTCCTTATATTTTTGTTGCACATTCAG (SEQ ID
		NO:80)
81	V fliC 2 EcoRI	GGGAATTCACGTTACGTTCTGACCTGGGTGCG (SEQ ID NO: 81)
82	V fliC 4 SphI	ACATGCATGCCGTCTTATCCAGCGTGATTTTCCA (SEQ ID
02	V 1110 1 0p	NO:82)
83	V.fljB 1 XmaI	TCCCCCCGGGCTGGTCTGCGTATCAACAGC (SEQ ID NO:83)
84	V fljB 2 EcoRI	GGGAATTCATCATACGCTTTCTGCACGTT (SEQ ID NO:84)
85	V fljB 3 EcoRI	GGGAATTCCAGAAAATTGATGCCGCGCTG (SEQ ID NO:85)
86	V fljB 4 SphI	ACATGCATGCCATAGAATAATCCCGCGGCC (SEQ ID NO:86)
87	sifA SacI-C	TGATGAGCTCTTTCTCTCTCCAAAATCTC (SEQ ID NO:87)
88	sifA KpnI-N	CTTAGGTACCGGTCGATTTAATCAATTATG (SEQ ID NO:88)
89	sifA-SacI-C	GCAAGAGCTCCTCTTCGTTTTGATCCATG (SEQ ID NO:89)
90	sifA-XhoI	GCCGGATCCAGATCTTATCTACTCGAGAGGAAAAAAACGCTAT
	BglII-C	GCCGATTACTATAGGG (SEQ ID NO:90)
91	sifA-XhoI	CCTCTCGAGTAGATAAGATCTGGATCCGGCGCGGATGATGTTG
	BglII-N	TAGATTTG (SEQ ID NO:91)
92	sifA-KpnI-N	GCAGGTACCCGGCAATGGGCCTGTTCTAC (SEQ ID NO:92)
93	dnaB-SphI	ACATGCATGCCGCGCGGATAAACGTCCGGTGAAC (SEQ ID
		NO:93)
94	dnaB-BamHI	CGCGGATCCTGTTAAAAGAATGACGGAGAGTTAC (SEQ ID
		NO:94)
95	tyrB-BamHI	CGTGGATCCGTGGCGCTTGCGCTTATCCGGCTTG (SEQ ID
	Lorento Weeks T	NO: 95) TCCCCCGGGCTTCGGCCTCCGCCACCGTTTT (SEQ ID
96	tyrB-XmaI	NO:96)
97	ycgO-SphI	ACATGCATGCGAATGCGAAATTCGCCGACGTG (SEQ ID
91	yego bpiii	NO: 97)
98	ycgO-BamHI	CGCGGATCCTAATTCAGGCTAAGGCGTCGACC (SEQ ID
	1 5	NO: 98)
99	dadA-BamHI	CGCGGATCCTTATCAGTTATGCGCGCTATGCAA (SEQ ID
		NO:99)
100	dadA-SmaI	TCCCCCGGGCTTTAATACCGACTTACTGCAACC (SEQ ID
		NO:100)
101	murA KpnI-3'	GGGGTACCCGTAGCCCTCTTCCAGCTTGATG (SEQ ID
100	murA XhoI-5'	$\frac{\mathtt{NO:101}}{\mathtt{CCGCTCGAGGGATAAATTTCGTGTACAGGGGC}}$ (SEQ ID
102	MULA AUOI-5	NO:102)
103	yrbA BglII-3'	GAAGATCTTTAAAATCCGTTAAGTTTACGAT (SEQ ID
100	1	NO:103)
104	yrbA SacI-5'	CGAGCTCCCGGCCTACACTTCGCATGATCC (SEQ ID NO:104)
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Please replace para. [273] that spans pages 86 to 87 with the following amended paragraph:

To establish a balanced-lethal host-vector system, the drug-resistance marker present in pVAX1 was replaced with a regulatable *ara*C PBAD *asd* cassette (see Figure 37B). The 2.1 kb DNA fragment containing the eukaryotic DNA expression cassette was PCR-amplified from the pYA3587 (Figure 37A) DNA template with a pair of primers (Primer 47: 5'CGACCCGGGATCGATCTGTGCGGTATTTCACACCG 3', SEQ ID NO:47, and Primer 48: 5'GCACCCGGGTCGACAGATCCTTGGCGGCGAGAAAG 3', SEQ ID NO:48). (See Table 3). The PCR product, digested with *SmaI* enzyme, was ligated with the 4.0 kb blunted *XbaI-Bsa*AI fragment from pYA3608 (Figure 30 and 31A), a plasmid possessing an SD-GTG *asd* and the *ara*C PBAD fragment from *Escherichia coli* B/r, to result in plasmid pYA3611.